

SHCHERBAKOVA, KP

PROCESSES AND PROPERTIES INDEX

5587. ADSORPTION FROM SOLUTIONS AND THE MICROPOROSITY OF ACTIVATED CHARCOALS. Kiselev, AV and Shcherbakova KP (Doklady Akad. Nauk S.S.R., 1944, 45, 257-9; compt. rend. acad. sci. U.R.S.S., 1944, 45, 214-3; Chem Abstr., 1945, 39, 5150). The absorption of aliphatic alcohols (butyl through heptyl), fatty acids (acetic through heptylic), and Na salts of oleic and erucic acids from aq. solns. by a specially purified activated charcoal was studied. At low concns., the adsorption which increased with an increase in mol. wt., s.t.e., in the "direct Traubie series," was apparently controlled by contending forces acting on the adsorbate. At higher concns., corresponding to max. adsorption, the vol. of the micropores of the adsorbent was the factor controlling the extent of adsorption. This was shown by the fact that the vol., of the adsorbed mols. was substantially identical for the above mentioned adsorbates, all of which are characterised by a small, identical cross section. Further confirmation is found in the fact that a smaller vol. of adsorbed mols. was observed at max. adsorption of bulky dye mols., e.g., methylene blue and Congo red.

ASH-31A
ATTACHMENT LITERATURE CLASSIFICATION

SHCHERBAKOVA, K. P.

DEFICIENCIES AND ADVANTAGES OF THE DIFFERENT TYPES OF ACTIVATED CHARCOAL
1ST AND 2ND ORDERS 3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

F 3931. ACTIVATED CHARCOAL: ADSORPTIVE PROPERTIES AND STRUCTURE.
Kiselov, A. V. and Shcherbakova, K. P. (Acta Physicochim., U.R.S.S.,
1946, 21, 539-554).

In studying the structure of solid adsorbents, particularly that of finely porous adsorbents of large absorbing power, consideration must be given to the structure of the solid skeleton, the pores and the interface. The last two features can be investigated by adsorption methods. Investigations have been made over a wide concentration range of the adsorption isotherms of activated charcoal for various organic substances from aqueous solutions. With substance that mix with water, the isotherms pass through a maximum and the total content of the adsorbate in the adsorption volume is much greater than the amount adsorbed. For the homologous series of fatty acids and alcohols, the limiting adsorbed volumes, expressing approximately the volume of the adsorption space, are constant. This rule is accounted for by the complete packing of the charcoal micropores with the molecules of these substances. Changes in the structure of the adsorbate mole-

SHCHERBAKOVA, K. S.

"Basic Problems of Kidney Bean Cultivation Techniques in Gor'kiy Oblast." (Dissertation
for Degree of Candidate of Agricultural Sciences) Min Higher Education, Gor'kiy
Agriculture Inst, Gor'kiy, 1955

SO: M-1036 28 Mar 56

ZHONDETSKAYA, Ol'ga Dmitriyevna; SHCHERBAKOVA, Kladiva Stepanovna;
METEL'TSIN, P.G., otvetstvennyy redaktor; MASHAROVA, V.G., redaktor;
SUSHKEVICH, V.I., tekhnicheskiy redaktor

[Radio interference from electric transportation and ways of controlling
it] Radiopomekhi ot elektrotransporta i bor'ba s nimi. Moskva, Sviaz'-
izdat, 1957. 42 p.
(Radio--Interference) (MLRA 10:9)

AUTHOR: Shcherbakova, K.S. (Engineer) SOV/110-59-4-20/23
TITLE: Radio Interference from Household Electrical Equipment
and its Suppression (Radiopomekhi sozdavayemyye
bytovymi elektroustroystvami, i sposoby ikh podavleniya)
PERIODICAL: Vestnik Elektropromyshlennosti, 1959, Nr 4, pp 69-71 (USSR)
ABSTRACT: In power-operated household electrical appliances radio
interference originates mainly in commutator motors,
which can sometimes be replaced by induction motors.
Other important sources of radio interference are starting
relays and thermostats; in this respect high speed
thermostats are much better than slow speed ones. The
radio interference from household appliances is usually
transmitted over the power circuit and should, therefore,
be suppressed at source. It is currently required that
household equipment should be provided with interference
suppression on manufacture. Standard limiting values of
radio interference in microvolts produced by various types
of household electrical equipment in the frequency range
0.15 - 400 Mc/s without interference suppression are given
in Table 1. The effectiveness of interference suppression
systems for electrical apparatus can be determined from
this table. Interference from household equipment is
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SOV/110-59-4-20/23

Radio Interference from Household Electrical Equipment and its Suppression

suppressed by screening the source of interference and by the use of power system filters and also by suitable choice of materials and designs. In many types of equipment such as irons and electric razors it is difficult to make the suppression devices both small and safe enough. Capacitors connected between live conductors and the frame of the apparatus may cause the frame to assume dangerous potentials under certain circumstances. Accordingly when the frame is not earthed the total capacitance of all such capacitors should not exceed 0.013 microfarads for 220 V supply or 0.023 microfarads for 127 V supply. Capacitor block type 3B is used for interference suppression in household equipment; a circuit diagram is given in Fig 1, and data about the available range of capacitors is given in Table 2. The schematic circuit diagram of an electric floor polishing machine type EPM-1 with interference suppression units is given in Fig 2. The circuit diagram of a household electric drive with interference suppression is given in Fig 3. The circuit diagram of a household refrigerator

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Radio Interference from Household Electrical Equipment and its
Suppression

with interference suppression is given in Fig 1.
Details of the capacitors used in all these suppressors
are given.

Card 3/3 There are 4 figures and 2 tables.

SUBMITTED: December 7, 1958

SPRINGER, Thomas and J. SHOEMAKER, R. S. in Int. -
Calculus-type current leakage on the contact wires of electric
mail-trucks and statistical characteristics of radio interferences.
Ergonomika No. 6, 1965, p. 165.

(MIRA 1st)

GAYDAMAK, S., student; SMIRNYAKOVA, G., studentka; KUZ'MINA, E., studentka;
LIPOVA, R., studentka; FOMINA, T., studentka; PAVLOVA, N.,
studentka; KALINOVA, M., studentka; SHCHELEKO, A., student;
SHCHERBAKOVA, L., studentka; GUDOCHKINA, L.M.

Effect of salinity on the results of determining the specific
weight of soils. Sbor. nauch. trud. Kaz GMI no.19:197-198 '60.
(MIRA 15:3)
(Soils--Analysis)

NERCHINSKIY, Ya.; SICHERBAKOVA, L., otv. za vypusk; SKIBA, T.,
tekhn. red.

[With hand over heart; collected sketches of foreign writers
on Uzbekistan] Polozha ruku na sordtse; sbornik ocherkov ino-
strannikh pisatelei ob Uzbekistane. Tashkent, Gos.izd-vo
khudozh. lit-ry, 1962. 85 p. Translated from French and
other languages. (MIRA 15:9)

(Uzbekistan--Description and travel)

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001548910004-9

SAFRAZBEKYAN, O.A., inzhener; VASILIYEVICH, M.G., inzhener;
SHCHERBAKOVA, L.A., agronom.

Evaluating the performance of new checkrow potato planters.
Sel'khozmashina no.8:18-22 Ag '56.

(MLRA 9:10)

(Planters (Agricultural machinery))

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001548910004-9"

SHCHERBAKOVA, L. F.

USSR/Meteorology - Instruments Jan/Feb 48

Thermometers, Resistance

"Electrical Resistance Thermometers for Observations on the Vertical Distribution of Air Temperature," L. F. Shcherbakova PA 167T97

"Meteorol 1 Gidrol" No 1, pp 109-114

Describes relatively simple method for remote determination of air temperature with resistance thermometers and a Wheatstone bridge. Two types of thermometers: one with open filament, and one with filament in metal envelope. Tables give data from tests with three thermometers

constructed at Main Geophys Obs. Submitted
11 May 47

167T97

Shekerbakova, L. F.

U S S R .

6.4-237

551.551:551.584

✓ Shekerbakova, L. F., Issledovanie nekotorykh sposobov kharakteristiki turbulentnogo obmena mezhibochnym uchlenenii v nizhnem slos atmosfery. [Methods of investigating turbulent exchange by means of observational data in the lower atmosphere.] Leningrad. Glavnaya Geofizicheskaya Observatorija, Trudy, 16(78):25-51, 1949. 8 figs., 6 tables, 8 refs., 22 eqs. DIC—Analyzing a series of microclimatological profiles, given in the same volume on p. 136-143, the author concludes that for stable conditions SVERDRUP's formula gives the best results, Rossby's formula is adequate for adiabatic and BUDVKO's equation for convective conditions. LAIKARTMAN's theory does not agree with observations. The wind profile for nonadiabatic conditions has a definite curvature, depending on stability. Subject Headings: 1. Atmospheric turbulence 2. Turbulence theory 3. Micrometeorological profiles.—A.A.

SHCHERBAKOVA, L.F.

5.9-125

SHCHerbakova, L. F., O kharakteristike turbulentnogo obmennia po mikroobehaniam i
srednemu gradiente skorosti veta. [Determination of turbulent exchange by microoscilla-
tions and mean gradient of wind velocity.] Leningrad. Glavnaya Gidrofizicheskaya Observa-

toria. Trudy, 16(78):102-105, 1949. 2 refs., 4 figs. DLC—The author develops the formula

$X = ce^2 / \frac{\partial u}{\partial z}$ for the computation of the coefficient of exchange, knowing the standard deviation
 e of the horizontal wind velocity and the vertical gradient $\partial u / \partial z$ of the mean wind. It is
not assumed that the momentum is constant on the path of mixing, as it was done by Ertel
in a similar treatment. A difficulty involved is the value of the coefficient c (preliminary
1-1), which seems to depend on the stratification. Subject Headings: 1. Turbulent exchange
2. Wind fluctuations. I. Ertel, H.—A.A.

551.511:551.551

1
68

SHCHERBAKOVA, L.F.

Field investigation of the effect of afforestation on wind velocity,
radiation balance and turbulent exchange. Trudy GGO no.29:11-14 '52.
(Afforestation) (Meteorology, Agricultural) (MIRA 11:1)

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001548910004-9

SECHERBAKOVA, L.E.

wind profiles in interstrip forest grids. Trudy GGO no. 43:13-16
(MIRA 11:5)

(Winds) (Afforestation)

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001548910004-9"

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001548910004-9

SHOLETTBANK V.

~~Diffusion hydrometer. Mettler, model no. 614P-52 Je '57.~~
~~(ML2A 10:9)~~

(Hydrometry)

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001548910004-9"

YOLOKH, V.O.; GUSHCHINA, M.V.; IGRUNOV, V.D.; NECHAYEV, I.N.; POKROVSKAYA, I.A.; TRIFONOVA, T.S.; TSYGANNOVA, A.M.; RUSIN, N.P., otv.red.; KITAYTSEV, A.M., red.; KUZ'MIN, L.A., red.; OLIMPOV, V.G., red.; SKITEYKIN, I.S., red.; BERLIN, I.A., red.; NECHAYEV, I.N., red.; SHCHARBAKOVA, L.F., red.; MARTYNOV, S.I., red.; SIMONOV, Ya.P., red.; IVANOV, A.P., red.; BESSONOV, N.P., red.; YASNOGORODSKAYA, M.M., red.; VLADIMIROV, O.G., tekhn.red.

[Directions for hydrometeorological stations and posts] Nastavlenie gidrometeorologicheskim stantsiam i postam. Leningrad, Gidrometeor.izd-vo. No.3, pt.1. [Observations at meteorological stations] Meteorologicheskie nabliudenia na stantsiakh. 1958. 223 p.
(MIRA 12:12)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeorologicheskoy sluzhby. 2. Sotrudniki Metodicheskogo otdela Glavnoy geofizicheskoy observatorii im. A.I.Voyeykova (for Volokh, Gushchina, Igrunov, Nechayev, Pokrovskaya, Trifonova, TSyganova). 3. Glavnoye upravleniye Gidrometeorologicheskoy sluzhby SSSR (GUGMS)(for Kitaytsev, Kuz'min, Olimpov, Skiteykin). 4. Glavnaya geofizicheskaya observatoriya (GGO) (for Berlin, Nechayev, Rusin, Sherbakova). 5. Mestnyye upravleniya Gidrometeorologicheskoy sluzhby (for Martynov, Simonov, Ivanov, Bes- sonov).

(Meteorology—Observations)

S/169/62/000/012/081/095
D228/D307

AUTHOR: Shcherbakova, L.F.

TITLE: Analysis of the results of snow measuring surveys
and recommendations for improving the method of
snow cover observations

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 12, 1962, 56,
abstract 12V354 (In collection: Snezhn. pokrov, yego
rasprostr. i rol' v nar. kh-ve, N., AN SSSR, 1962,
5-14)

TEXT: The results of analyzing the data of snow measuring
surveys in a triangle and on a typical open traverse are stated.
These were carried out at the hydrometeorological and agrometeorolo-
gical stations of Gor'kiy, Omsk, Slavgorod (Altayskiy kray), Solyan-
ka (Krasnoyarskiy kray), and Chismy (Bashkiriya) and at the Dubov-
skaya discharge station (Rostovskaya oblast'). These data were com-
pared with results from a continuous snow measuring survey, made
simultaneously on a number of parallel measuring lines distributed

Card 1/5

SHCHERBAKOVA, L. F.

BURKOVSKAYA, Ye.Kh., nauchnyy sotrudnik; IGRUNOV, V.D., nauchnyy sotrudnik;
NECHAYEV, I.N., nauchnyy sotrudnik; BOBRIKOVA, V.N.; TERENT'YEVA,
T.N.; SHCHERBAKOVA, L.F.; BERLIN, I.A., otv.red.; KITAYTSEV, A.M.,
red.; KUZ'MIN, L.A., red.; OLIMPOV, V.G., red.; SKITEYKIN, I.S.,
red.; RUSIN, N.P., red.; MARTYNOV, S.I., red.; SIMONOV, Ya.P.,
red.; IVANOV, A.P., red.; BESSONOV, N.P., red.; YASNOLORODSKAYA,
M.M., red.; VLADIMIROV, O.G., tekhn.red.

[Directions for hydrometeorological stations and posts] Nastavlenie
gidrometeorologicheskim stantsiam i postam. Leningrad. Gidrometeor.
(Continued on next card)

BURKOVSKAYA, Ye.Kh.--(continued) Card 2.

izd-vo. No.3, pt.2. [Working up materials of meteorological observations] Obrabotka materialov meteorologicheskikh nablyudenii. 1958. 85 p. (MIRA 13:1)

1. Russia (1923- U.S.S.R.) Glavnaya upravleniya gidrometeorologicheskoy sluzhby. 2. Glavnaya geofizicheskaya observatoriya im. A.I.Voyeykova (for Burkowskaya, Igrunov, Nekhayev). 3. Starshiye inzhenerny Nauchno-issledovatel'skogo instituta aeroklimatologii (for Bobrikova, Terent'yeva). 4. Glavnoye upravleniye Gidrometeorologicheskoy sluzhby SSSR (for GUGMS) (for Kitaytsev, Kuz'min, Olimpov, Skiteykin). 5. Glavnaya geofizicheskaya observatoriya (GGO) (for Berlin, Nekhayev, Rusin, Shcherbakova). 6. Upravleniye gidrometeorologicheskoy sluzhby (UGMS) (for Martynov, Simonov, Ivanov, Bessonov).

(Meteorology--Observers' manuals)

analysis of the results ...

S/169/62/000/012/081/095
D228/D307

uniformly over relatively extensive territory. Comparison of the results of snow measuring surveys on a typical open traverse and in a triangle showed the former to possess more advantages than the latter. A typical traverse can be chosen more easily for the purpose of getting accurate average values for the snow cover depth and the water reserve, and it gives a truer characteristic of the snow cover distribution. For all snow survey traverses in an open area the values for the coefficient of variation of the snow cover's depth greatly exceed those for the coefficient of variation of its density. The value of the mean square deviation of the depth from the average depth rises as the depth of the snow cover increases. For the mean square deviation of the density this regularity is not observed anywhere. The precision, with which the average depths and densities of the snow cover and the average water reserves in it were determined, was sufficient in all continuous snow measuring surveys. Small errors in the determination of the snow cover depth were also obtained in surveys on an open line and in a triangle at the stations of Gor'kiy, Dubovskaya, Slavgorod and Solyanka, when the weather conditions were favorable and the quality of the obser-

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S/169/62/000/012/081/095
D228/D507

Analysis of the results ...

vations was good. The density error was sufficiently low only when the number of density measurements was not less than 20. In the author's opinion, for flat and hilly terrain with gentle slopes the least permissible length of an open traverse typical of such country amounts to 2-3 km. This suffices for the mean value of the snow cover depth on the traverse to coincide, to within 10-11%, with the average depth for the whole snow survey area. Investigation of errors in measurements of the snow cover depth showed that the maximum permissible distance between adjacent points differed on different lines. For a traverse length of 2-3 km, a distance of 20 m between adjacent points proved to be acceptable under various topographic conditions. For a length of 1 km, however, this distance had to be reduced to 10 km. It sufficed to measure once at each point the snow cover density over every 100 m on a line of 2-3 km and over every 50 m on a line of 1 km. The author's recommendations for improving the observational procedure come down to the following. The requirement set out for hydrometeorologic stations that in an open area a snow survey traverse should be shaped like a triangle, with intervals of 10 and 100 m between points where the

Card 3/5

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D228/D307

Analysis of the results ...

depth and the density of the snow cover are measured, ought to be replaced by requirements that snow surveying should be carried out on a traverse typical of the station environs with the due precision of snow-cover depth and density measurements. A typical traverse should be one which includes all the main topographic forms and types of land near the station. In addition the total length of individual traverse sections, passing over various topographic forms and types of land that identically influence the mode of occurrence of the snow cover, must be in the same relation to the entire traverse length as the total areas, occupied by these topographic forms and types of land, are to the entire area near the station. The mean square error of the water reserve in the snow cover on a traverse must not exceed 5% of its average value. At most hydrometeorologic stations of the USSR it would, in the author's opinion, be possible to choose a typical linear traverse with a length of 2-3 km and, having measured on it the depth of the snow cover every 20 m and the density every 100 m, to get satisfactory results. The distribution of the snow cover in any locality should be characterized numerically. The mean deviation, defined by one

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S/169/62/000/012/081/095
D228/D307

Analysis of the results ...

measurement of the depth of the snow cover, from the average depth can easily be taken for this numerical characteristic. From this quantity it is easy to calculate the approximate mean square deviation of one measurement from the average value. 3 references.
Abstracter's note: Complete translation

Card 5/5

SHCHERBAKOVA, L.F.

Improvement of snow measuring observations. Meteor. i gidrol. no.1:
43-49 Ja '62. (MIRA 15:1)
(Snow surveys)

RAVICH, M.I.; SHCHERBAKOVA, L.G.

Nature of the solid phase crystallized at high temperatures from tribasic sodium orthophosphate solutions. Izv.Sekt.fiz.-khim.anal. 26:248-258 '55.
(MIRA 8:9)

1. Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova AN SSSR.
(Phosphates) (Phase rule and equilibrium)

SHCHERBKOVA, I. I.

(3)
11.1.

C—C-derivatives of carbohydrates. Yu. A. Zhdanov and L. I. Shcherbikova (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.R.* 90, 185-8 (1953); cf. *C.A.* 47, 2710h.— α -Chlorotetraacetylglucos (5 g.) with p -ClC₆H₄MgBr from 31.8 g. RBr gave after the usual treatment 40% *1-(p-chlorophenyl)tetraacetylglucose*, m. 145.5-6.0°. Treatment of 0.5 g. *1-anisyltetraacetylglucose* 40 min. with 0.84 g. Cl in CCl₄ gave *1-(3-chloro-p-anisyl)tetraacetylglucose*, m. 150.5-1.0° (from iso-PrOH); apparently Cl is in *o*-position to the MeO group. Similarly was obtained 68% *1-p-phenetyltetraacetylglucose*, m. 101-2° (from petr. ether), which with Br in AcOH gave 90% *di-Br deriv.*, m. 159-60°, with the Br atoms located in *o,o'*-positions to the EtO group. β -Tetraacetylyxose (16 g.) in 20 ml. AcCl heated 10 min. with 15 g. PCl₅ and 5 g. AlCl₃ on a water bath gave, after quenching in much cold H₂O, 28% α -chlorotetraacetylyxose, m. 105° (from petr. ether). This with p -MeOC₆H₄MgBr gave 50% *1-(p-anisyl)triacytlyxose*, m. 129.5-30.5° (from iso-PrOH). Similarly obtained were: 75% *1-(p-chlorophenyl)triacytlyxose*, m. 149.5-50.0° (from iso-PrOH) [*mono-Cl deriv.*, m. 151-3° (from iso-PrOH); *Br deriv.*, m. 159-60° (from iso-PrOH)]; 38% *1-p-phenetyl-triacytlyxose*, m. 130.5-1.0° (from petr. ether). The latter (4 g.) in 28.8 ml. Ac₂O and 19.2 ml. AcOH added to 24 g. Cu(NO₃)₂·3H₂O in 33.6 ml. Ac₂O and 14.4 ml. AcOH, gave 33% *nitro deriv.*, m. 165.5-7.0° (from iso-PrOH). The *p-anisyl deriv.* (above) in 40 min. at 65° similarly gave 36% *nitro deriv.*, m. 155.5-6.5° (from iso-PrOH). G. M. K.

SHCHERBAKOVA, L.I.

The effect of steric factors on the properties of dyes containing the biphenyl nucleus. III. Investigation of the bisazo dyes, derivatives of biphenyl, phenanthrene, phenazono, and phenanthridone. B. M. Krasovitskii, D. G. Pereynslova, O. D. Kovalenko, and L. A. Shcherbakova (A. M. Gor'ki State Univ., Khar'kov). *Ukrain. Khim. Zhur.*, 21, 614-18(1955)(in Russian); cf. *C.A.* 49, 9014g.—
Dyes from 2,7-diaminophenanthrene and 2,7-diaminophenazono differ little from each other and from the 2,7-diaminophenanthronequinone, but are more highly colored than the 2,7-diaminofluorene (I) and the 2,7-diaminocarbazole (II) dyes. They are nearly as substantive as I dyes, and more highly substantive than II dyes. The 2,7-phenanthridone dyes differ little in coloration depth and substantivity from the corresponding benzidine dyes, but are considerably deeper colored and more substantive than the 3,3'-diaminobenzanilide dyes. The 2,4,4'-triaminobiphenyl dyes are considerably less substantive and more highly colored than benzidine dyes because of steric hindrance, and occupy an intermediate position between the benzidine and biphenylene dyes. W. M. Sternberg

Shcherbakova, L. I.

Syntheses in the area of C-C derivatives of carbohydrate. Yu. A. Zhdanov, L. I. Shcherbakova, and R. V.

Golovina (M. V. Lomonosov State Univ., Moscow). Doklady Akad. Nauk S.S.R. 107, 209-81 (1956); cf. C.A. 47, 27108. To RMgX from 3.93 g. Mg and 84.04 g. 2-indothiophene was added 5 g. chloroacetyllose, yielding 2.1 g. thiacyllose, m. 151-2° (from iso-PrOH-petr. ether). Similarly, RMgX from 38.5 g. *p*-PhCH₂Br and 4 g. activated Mg treated with 5 g. chlorotetraacetylgalactose yielded *biphenyltetraacetylgalactose*, m. 150-7° (from iso-PrOH). Similarly was prep'd. 80% *p*-biphenyltetraacetylglucose, m. 180° (from EtOH). The latter (1 g.) treated with 1.5 g. Br in CS₂ and heated until HBr evolution ceased gave on treatment with 6% NaOH 97% *p*-bromobiphenyltetraacetylglucose, m. 197° (from iso-PrOH). *p*-PhCH₂MgBr and chlorotriacetylxylose gave *p*-biphenyl-triacetylxylose, m. 191-2° (from petr. ether). To 1 g. *p*-anisyltetraacetylglucose in CCl₄ was added 1.9 g. ICl in CCl₄, yield after 1-hr standing and treatment with H₂O, 38% *m*-ido-*p*-anisyltetraacetylglucose, m. 151-2° (from iso-PrOH). *p*-MeOC₂H₅MgBr and chlorotetramethylglucose gave a sirupy *p*-anisyltetramethylglucose, which with KMnO₄ gave anisic acid. Sirupy *p*-anisyltetraacetylglucose, *p*-phenethyltetraacetylglucose and *all*-triacetylxylose were prep'd. in a similar manner. G. M. Kosolapoff

GRIGOR'YEVA, N.Yu.; KRUGLYAK, L.P.; SHCHERBAKOVA, L.I.

Absorption spectra and structure of glutaconaldehyde dianilis.
Zhur.ob.khim. 31 no.8:2599-2604 Ag '61. (MIRA 14:8)

1. Khar'kovskiy gosudarstvennyy universitet.
(Glutaconaldehyde) (Amines—Spectra)

GRIGOR'YEVA, N.Ye.; RODIONOVA, L.A.; SHCHERBAKOVA, L.I.; TYUPA, D.P.

Certain transformations of glutaconaldehyde dianils. Zhur.
(MIRA 15:2)
ob.khim. 32 no.2:493-501 F '62.

1. Khar'kovskiy gosudarstvennyy universitet.
(Glutaconaldehyde)

SHCHERBAKOVA L. I.

3

1940. Microbiological method for determination of folic acid using readily available media. G. N. Furskin, and L. I. Shcherbakova (Bioshimika, 1961, 18, 171-178). -A medium is described for use in the microbiological determination of folic acid by growth of *Streptococcus faecalis*. The basis of the medium is hydrolyzed casein purified from folic acid by adsorption with charcoal at pH 3, with added glucose, salts, and vitamins. D. H. SAWYER.

Dept. "Hemotherapy", All Sci Res Chemico-Pharmaceutical
Inst., Moscow

Shcherbakova, L. I.

Absorption of sulfa drugs by bacterial cells (tagged atom study). G. N. Pershin and L. I. Shcherbakova. *Farmakol. i Toksikol.* 18, No. 5, 19-30 (1955). — Sulfaazole, with S^{35} (activity 1.5 mc./g.) in the methylthiazole nucleus, and sulfanilamide (0.35 mc./g.) were added to cultures of *Staphylococcus aureus*, *Shigella paratyphenteriae*, and *Escherichia coli* (sulfanilamide-sensitive strains) in broth, physiol. salt soln., horse serum, and artificial mediums. Cell counts ranged from 5 to 20 billion/ml. In the above mediums the cells absorbed the sulfa drug to a higher concn. than that in the culture medium (gradients were proportional to initial concn.). When exposure time was short, the absorbed drug leached out readily, but with time a fixation occurred. In the presence of p -H₂NCH₂COOH the bacterial cells absorbed somewhat more of the sulfa drugs than in its absence. — Julian F. Smith

A-U. Sci Res Chemico-Pharm. Inst. im S. Ordynovitschje

PERSHIN, O.N.; SHCHERBAKOVA, L.I.

Effect of antibacterial chemotherapeutic preparations on the synthesis of para-aminohippuric acid in rat liver sections [with summary in English]. Biul.eksp.biol. i med. 44 no.9:70-73 S '57. (MIRA 10:12)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevicheskogo instituta imeni S.Ordzhonikidze (dir. - prof. V.M.Rubtsov), Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR V.V.Zakusovym.
(ANTIBIOTICS, effects,
on liver slices para-aminohippuric acid synthesis (Rus))
(PARAAMINOHIPPURIC ACID, metabolism,
liver slices, eff. of antibiotics on synthesis (Rus))
(LIVER, metabolism,
para-aminohippuric acid, eff. of antibiotics on synthesis
in vitro (Rus))

PERSHIN, G.N., SHCHERBAKOVA, L.I.

Mechanism of the antibacterial effect of mercury preparations
[with summary in English]. Farm. i toks. 21 no.2:51-56 Mr-Ap '58
(MIRA 11:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S. Ordzhonikidze.
(ANTISEPTICS, MERCURIAL effects
on E. coli, mechanism of action (Rus))
(ESCHERICHIA COLI, effect of drugs on,
mercurial antiseptics, mechanism of action (Rus))

SHCHERBAKOVA, L. I.

Mode of action of paraaminosalicylic acid on *Mycobacterium*. Farm. i toks
21 no. 6:56-62 N-D '58.

(MIRA 12:1)

1. Laboratoriya khimioterapii (zav. - prof. G. N. Pershin) Vsesoyuznogo
nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta.
(PARAAMINOSALICYLIC ACID, eff.
on *M. tuberc.* metab. (Rus))
(MYCOBACTERIUM TUBERCULOSIS, eff. of drugs on,
PAS, metab. aspects (Rus))

PERSHIN, G.N., SHCHERBAKOVA, L.I.

Effect of salicylic and paraaminosalicylic acids on the synthesis
of paraaminohippuric acid in liver slices [with summary in English]
Biokhimiia 23 no.7:344-346 My-Je '58 (MIRA 11:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut im. S. Ordzhonikidze, Moskva.

(PARAAMINOSALICYLIC ACID, effects,
on liver slice paraaminohippuric acid synthesis (Rus))

(LIVER, metabolism
paraaminohippuric acid, eff. of PAS & salicylic acid on
synthesis in vitro (Rus))

(SALICYLIC ACID, effects
same (Rus))

(PARAAMINOHIPPURIC ACID, metabolism
liver slices, eff. of PAS & salicylic acid on synthesis (Rus))

PERSHIN, G.N.; SHCHERBAKOVA, L.I.

Absorption of sulfanilamide preparations by bacterial cells.
(MIRA 13:6)
Khim.i med. no.11:89-98 '59.
(SULFONAMIDES) (BACTERIA, EFFECT OF DRUGS ON)

SHCHERBAKOVA L.I.

Nature of the tuberculostatic action of para-aminosalicylic acid derivatives. Farm. i toks. 22 no.1:80-89 Ja-F '59.
(MIRA 12:4)

1. Laboratoriya khimioterapii infektsionnykh zabolеваний (zav. - prof. G.N. Pershin) Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevicheskogo instituta.
(PARAAMINOSALICYLIC ACID, rel. cpds.
tuberculostatic eff. of various cpds. (Rus))

PERSHIN, G.N.; SHOHERBAKOVA, L.I.

Simple method for studying antimetabolites. Biokhimiia 25 no.4:684-
(MIRA 13:11)
687 Jl-Ag '60.

1. The Union Research Chemo-Pharmaceutical Institute, Moscow.
(ANTIMETABOLITES) (ESCHERICHIA COLI)

PERSHIN, G.N.; SHCHERBAKOVA, L.I.

Mechanism of the action of 6-mercaptopurine. Farm. i toks. 25 no.1:
19-24 Ja-F '62. (MIRA 15:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S.Ordzhonikidze.
(PURINES)

GRIGOR'YEVA, N.Ye.; SHCHERBAKOVA, L.I.; GINTSE, I.K.

Catalytic hydrogenation of dianils of glutaconaldehyde and their
salts (pyridine dyes). Ukr.khim.zhur. 28 no.7:848-851 '62. (MIRA 15:10)

l. Khar'kovskiy gosudarstvennyy universitet im. A.M.Gor'kogo.
(Dyes and dyeing) (Glutaconaldehyde) (Aniline)

PERSHIN, G.N.; SHCHERBAKOVA, L.I.

Antimetabolic effect of 5(4)-diazimidazole-4(5)-carboxamide
and of 2-azahypoxanthine. Farm. i toks. 26 no.6:712-714 '63
(MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsev-
ticheskiy institut imeni S. Ordzhonikidze.

SCHERBAKOVA, L. M.

V

USSR / Pharmacology, Toxicology, Chemotherapeutic
Preparations.

Abs Jour: Ref Zhur-Biol., No 9, 1958, 42462.

Author : Pershin, G. N.; Scherbakova, L. M.

Inst : Not Given.

Title : The Effect of Antibacterial Chemotherapeutic
Preparations On the Synthesis of the Para-amino-
Hippuric acid in Sections of a Rat's Liver.

Orig Pub: Byul. eksperim. biol. i meditsiny, 1957, 44, No
9, 70-73.

Abstract: Penicillin depresses the synthesis of para-amino-
hippuric acid (PAH) in high concentrations only
(100-10,000/ml). Similar effect was demonstrated
for streptomycin (4000 units/1 ml) chlorampheni-
col, syntomycin, dextramycetin and aureomycin (in
conc. of 1000 μ /ml). Chloromycetin and syntomycin

Card 1/2

DRGU, P.P., kand. sel'skokhoz. nauk; CHALYY, I.I., kand. sel'skokhoz. nauk; SHCHEPEKOVA, L.M.

Effect of the ripeness of seed on the yield of individual oilseed and aromatic crops. Agrobiologija no.5:664-670 (MIRA 18-3) 6.0 '65.

1. Vsesoyuznyy nauchno-sследовательский институт масличных и ароматических культур, Краснодар.

5-3833

77943
SOV/30-33-1-32/49

AUTHORS: Koton, M. M., Glukhov, N. A., Baburina, A. N.,
Shcherbakova, L. M.

TITLE: Synthesis and Polymerization of 3,3'-Bis(chloromethyl)
oxacyclobutane

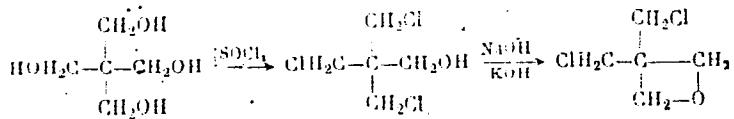
PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 1, pp 182-
185 (USSR)

ABSTRACT: This is the first paper of a series on synthesis and
polymerization of 3,3'-bis(chloromethyl)oxacyclobutane
(I). Polymerization of (I) in ethyl chloride or dichloro-
ethane solution in the presence of boron trifluoride and
water under the conditions of cationic polymerization
at -20° was studied. A short review of the properties
and preparation of (I) and its polymers ("Penton," pro-
duced by Hercules Powder Co., U.S.A.) are given. (I)
was obtained from pentaerythritol according to the
A. Moradien and J. B. Cloke, and also the A. Farthing
methods (see references).

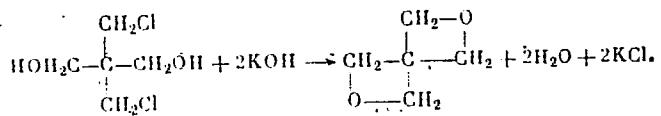
Card 1/4

Synthesis and Polymerization of 3,3'-Bis
(chloromethyl)oxacyclobutane

77523
SOV/80-33-1-32/49



(I) was purified using a 50-60 theoretical-plate column to remove the traces of dioxaspiroheptane (II), which is also formed in the reaction



Removal of (II) is important since its presence leads to the formation of nonmelting, insoluble polymers. Effect of the temperature on the yield and the characteristic viscosity of the (I) polymers is given in Table 1.
Effect of concentration of I in the reaction mixture on

Card 2/6

Synthesis and Polymerization of β, β' -Bis
(chloromethyl)hexacyclotetane

77543
SOV/30-33-1-32/49

Table 1. Key to Dependence of yield and characteristic viscosity on temperature: (a) experiment Nr; (b) temperature (in $^{\circ}\text{C}$); (c) polymerization time (in min); (d) yield of polymer (in %).

(a)	(b)	(c)	(d)	EJ
48	-10	480	82	0.18
17	-20	480	44	0.50
23	-30	480	7	0.2

Card 3/5

Synthesis and Polymerization of 3,3'-Bis
(chloromethyl)oxacyclobutane

77523
SOV/80-33-1-32/49

the yield of polymer is given in Table 2. Ionic polymerization of (I) in the presence of BF_3 and water in a solution of ethyl chloride and dichloroethane was conducted in a glass apparatus, shown in Fig. A. The prepared polymer of (I) is a white powder, insoluble in the usual solvents, soluble in cyclchaxanone and o-dichlorobenzene at 50-80°. Yield under optimal conditions, 82-85%, mp 175-176°, specific viscosity $[\eta] 1.1-1.25$. The experimental part was conducted with participation of I. P. Morozova. There is 1 figure; 2 tables; and 7 references, 4 U.S., 2 U.K., 1 Japanese. The 5 most recent U.S. and U.K. references are: A. Farthing, J. Appl. Chem., 8, 186 (1958); E. Cronin, Mod. Plastics, 34, 150 (1957); E. Cronin, Rubber World, 135, 571 (1957); Plastics, 127 (1957); A. Moradie, J. B. Cloke, J. Am. Chem. Soc., 67, 942 (1945).

SUBMITTED:

July 2, 1959

Card 4/6

Synthesis and Polymerization of 3,3'-Bis
(chloromethyl)oxaeyclobutane

77523
SOV/80-33-1-32/49

Table 2. Key to Dependence of polymer yield on the con-
centration of monomer: (a) experiment Nr; (b) tempera-
ture (in °C); (c) polymerization time (in min); (d)
concentration of monomer (in mole/liter); (e) yield of
polymer (in %).

(a)	(b)	(c)	(d)	(e)	(f)
24	-20	480	1.0	26	0.3
36	-20	480	1.2	38	0.45
38	-20	480	1.43	54	0.85
32	-20	480	2.21	82	1.05
40	-20	480	2.83	80	1.10

Card 5/6

Synthesis and Polymerization of 3,3'-Bis
(chloromethyl)oxacyclobutane

77523
SOV/80-33-1-32/49

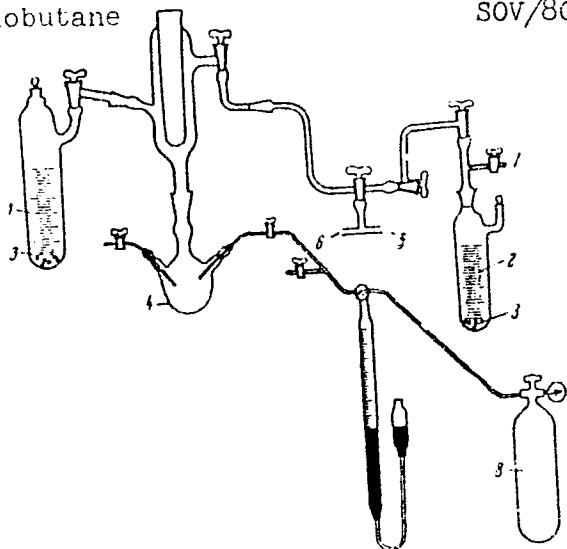


Fig. A. Installation scheme: (1) vessel for monomer; (2) vessel for solvent; (3) calcium hydride; (4) reactor; (5) to the pump; (6) to the MacLeod gage; (7) dry air supply; (8) cylinder with BF_3 .

Card 6/6

SEDYKH, Veniamin Mikhaylovich; BOCHARNIKOV, Mstislav Mikhaylovich;
SHUVALOV, Nikolay Grigor'yevich; KONSTROMITINOV, Konstantin
Nikolayevich; BURLUTSKAYA, Boris Dmitriyevich; SHCHERBAKOVA,
Lidiya Maksimovna; SHCHERBAKOV, Valentin Innokent'yevich

[Mining and dressing mica minerals] Razrabotka i obogashchenie
sliudianykh rуд. Moskva, Nedra, 1965. 247 p. (MIRA 18:12)

3(2)

AUTHORS: Kursakova, I. V., Shcherbakova, L. N. SOV/6-59-6-5/22

TITLE: Brigades of Communist Work in the NRKCh
(Brigady kommunisticheskogo truda v NRKCh)

PERIODICAL: Geodesiya i kartografiya, 1959, No. 6, pp 24-27 (USSR)

ABSTRACT: 6 brigades in the NRKCh are fighting at present for the right of calling themselves Brigades of Communist Work. The first brigade was constituted at the Department for the Delineation of Maps on a suggestion by Tamara Yegorova. Her brigade consists of: Nina Gladysheva, Galya Dikova, Tanya Draynykh, Lyusya Triandifilova and Galya Popovskaya and 5 more. Next participants in the competition were the brigades of the School Map Department of V. F. Smagins and V. A. Alekseyeva. The former includes L. M. Timashova, Z. P. Antropova, Nadya Gus'kova, the latter V. S. Tereshkova and A. A. Nikolayeva. The charting editors of the two brigades are, N. A. Lebtzova, A. V. Kravchenko, L. N. Krieger, L. A. Bugianova. Besides, two photographer brigades of 2 men each - V. P. Stepanov and V. P. Solovtsovskiy, and Yu. A. Fomkin and V. D. Medvedchuk are taking part. The 6th brigade is a group of members of the

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Brigades of Communist Work in the NRKCh

SOV/6-59-6-5/22

Komsomol. All members of the Alekseyeva Brigade are learning English, and some members of the Yegorova Brigade are studying at the Department of Geography of the MGU. There is 1 figure.

Card 2/2

SHCHERBAKOVA, L.N.

Maps in monographs on physical geography. Geod. i kart. no.11: ~~5-5~~
N '63. (MIRA 17:1)

S/15059/000/0 2/005/006

AUTHOR: Kuchta, E., D. Hertel, K. Pohl, A. A. Sloboda
E. F. Gabrovska, M. M. Uchternau, L. Mikroven

TITLE: A Method for the Determination of the Tendency for Formation in Rubber Mixtures during Vulcanization ¹⁵

PERIODICAL: Kauchuk i Rezina, 1959, No. 12, pp. 25-28

TEXT: The authors stress the importance of controlling the rubber mixtures during vulcanization to avoid scorching and the formation of sulfur of gases and steam due to moisture and the wrong combination of the rubber mixture can be harmful in this connection. Other causes of pore formation are listed. The gravimetric method for moisture-determination is questioned (Ref. 1). The duration of the method, viz. 40 minutes, for each determination, renders it unsuitable for industrial purposes. The degree of porosity is determined by the specific gravity method (Ref. 2). However, the specific gravity changes during vulcanization, particularly if a formation occurs. The ratio of the specific gravities of the vulcanizates

and the rubber mixture is given in Formula 1. The relation between the mixture of the rubber mixture, the K value, i.e., the above-mentioned ratio, and the porosity of the vulcanizate was studied. The experimental procedure is outlined. The value of K was computed according to experimental data. Fig. 1 shows the graph obtained from the determination of the specific gravities. The following is given for the determination of the K value for gravity before heating in glass (Formal 2) and for determination after heating in glass (Formal 3). The values of K obtained are listed in Table 1. The authors used the gravimetric method for determining the moisture in the rubber mixtures. Fig. 2 shows the relationship between the value of K and the moisture content of the initial rubber mixture according to the composition No. 151. The relationship which is obtained is explained by the fact that during the heating of vulcanization under relatively hard conditions (temperature 170-180°) part of the moisture contained in the rubber mixture volatilizes. A special method was applied to the determination of the moisture content in the case of press-baked samples at the "Kremsy" tire vulcanizing plant. It was applied in production to the control of rubber

Card 2/4

mixture used in the manufacture of tires overcomes, which, in turn, are vulcanized at atmospheric pressure and also in the absence of molds for shaped boots. As many as 89 rubber mixtures were tested in the plant and the results of the K values obtained are listed in Table 4. It can be seen from the table that in order to obtain conditions of approximate vulcanization at atmospheric pressure the rubber mixture must be characterized by a value of $K > 0.95$. The decreasing of rubber by the "gravimetric" method causes an increase in the K value by 15 to 75% both in industry and under laboratory conditions. Other tests were carried out for the K determination of rubber mixtures used in the manufacture of boot soles. The results are given in Table 6. A linear relationship between K and the moisture content in the structure of the boot sole manufactured by soiling according to standard industrial procedures. The authors conclude that they were able to develop a gravimetric method for the determination of the tendency for formation in polymerization during vulcanization and that this tendency is characterized by the value of K , which, in turn, depends on the rubber mixture of the rubber mixture. The method proposed was tested in industry in the Kremsy tire vulcanizing plant. The method proposed was tested in industry in the Kremsy tire vulcanizing plant. It was found that the rubber mixture had a value of 0.95.

Card 3/4

to be applicable to the control of rubber mixtures. The vulcanizable mixture value of K does not control the technological properties assigned to it, one of the most characteristic of the quality of rubber mixtures. The numerical value of the figure depends on the composition, processing conditions and vulcanization of the rubber mixture, i.e., it depends on time according to the composition of the rubber mixture and is applicable to the specific production conditions. There are 6 tables, 2 figures and 6 references. 3 Soviet and 1 English.

ASSOCIATION: Maschinenbaudirektorat Institut Research 1, 1600 Prague 1, Czechoslovakia
 Institut of Rubber and Latex Articles and the Tire
 Vulcanizing Plant

EYDEL'NANT, N.L.; RUBINA, S.I.; SMOLYANITSKIY, V.Z.; SEREBRYAKOVA, V.L.;
PLUNGIAN, L.V.; DASHKEVICH, V.S.; Prinimali uchastiye:
PESCHANSKAYA, R.Ya.; LEVINA, A.Yu.; GOL'DBREYKH, I.Ye.;
SHCHERBAKOVA, L.P.; PAPULOVA, P.A.

Activated kaolin and its use in rubber compounding. Kauch.
(MIRA 15:2)
rez. 20 no.9:46-49 S '61.

1. Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh
izdeliy, Vsesoyuznyy nauchno-issledovatel'skiy institut plenochnykh
materialov i iskusstvennykh kozhi i zavod "Sangigjiana".

(Kaolin)
(Rubber, Synthetic)

• KESCHANSKAYA, R.Ya.; GOL'DREYER, N.I.; FORER, Ye.R.; SHOHERBAKOVA, L.P.;
GAL'BRAYKH, I.Ye.; NIKIFOROVA, T.F.; FILIPPOVA, A.V.

New softeners for the manufacture of rubber footwear. Kauch. i
rez. 23 no.5:20-24 My '64. (MIRA 17:9)

1. Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh
izdeliy i zavod "Krasnyy treugol'nik".

GRIGOR'YEVA, A.T.; SHCHERAKOVA, L.S.; TATRINA, G.V.

Improvement of labor conditions in the cyanidation of steel. Gig.
i san. 23 no.11:83-85 N '58
(MIRA 12:8)

I. Iz Traktorozavodskoy rayonnoy sanitarno-epidemiologicheskoy
stantsii Chelyabinska.
(STEEL INDUSTRY--HYGIENIC ASPECTS)

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001548910004-9

SHCHERBAKOVA, L.S.

Technique of subsequent engraving of hydrographic details and the
relief on the same base. Geod. i kart. no.1:51-52 Ja '61.
(MIRA 14:9)

(Map printing)

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001548910004-9"

BUKHARIN, I.S.

Anesthesia in hypertension. Eksper. khir. i anest. 9 no.3:
67-70 My-Je '67.
(MIRA 18:3)

I. Kafedra anesteziologii (zav. - dotsent Ye.A. Damir) TSentral'-
nogo instituta usovershenstvovaniya vrachey, Moskva.

USSR/Human and Animal Physiology (Normal and Pathological)
Metabolism. Vitamins.

T

Abs Jour : Ref Zhur Biol., № 6, 1959, 26305

pigs and rats in order to discover the final products of I decay and excretion with urine of sulphates, neutral S and unchanged I was studied. It was determined that basically sulphates are excreted. One of the ways of irreversible decomposition of D₁ in the organism begins with their resulfonation reaction, as a result of which sulphur D₁ is transferred to amino-acids which later oxydize to sulphates. -- A.O. Natanson

Card 2/2

- 21 -

L 10716-65 EWT(1)/ECC ESD(1) CW
ACCESSION NR: AT4045513

S/2789/64/000/053/0035/0042

AUTHOR: Pinus, N. Z.; Shcherbakova, L. V.

TITLE: Spectral characteristics of fluctuations of wind velocity in the lower half of the troposphere

SOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy*, no. 53, 1964.
Dinamika atmosferyk (Atmospheric dynamics), 35-42

TOPIC TAGS: wind velocity, wind, wind velocity fluctuation, troposphere, atmospheric stratification

ABSTRACT: This article presents the results of a statistical analysis of data obtained by balloon observations in which fluctuations of the horizontal component of wind velocity were recorded in the atmosphere to heights of 6 km. The captive balloons had a special anemograph with a sensor in the form of a Venturi tube. The balloons were held at various levels above the ground, first at 100 m and then each 500 m thereafter to a height of 3 km and then each 1,000 m. The time occupied at each level was 5-20 minutes. The balloon also carried a meteorograph for measuring and recording atmospheric pressure, temperature and humidity. These data were used in statistical investigations of the horizontal component of wind velocity. Disturbance of the wind velocity field was evaluated using the dimensionless

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L 10716-65

ACCESSION NR: AT4045513

parameter

$$\psi = \frac{\sqrt{u^T}}{U}$$

(1)

where \bar{U} is the mean wind velocity at a particular level. The value of ψ , plotted in logarithmic coordinates, was found to decrease linearly with height

$$\psi = 5.2 H^{-0.4}$$

(2)

In the lower 500-m layer of the atmosphere, when there are relatively small values of the vertical gradient of mean wind velocity, ψ increases with an increase in the vertical temperature gradient, the increase being particularly sharp when the vertical temperature gradient is greater than $1^\circ/100$ m. Fig. 1 of the Enclosure shows examples of empirical normalized correlation functions for three heights as shown by observations of fluctuations of the horizontal component of wind velocity. This figure shows that the character of the correlation functions is essentially dependent on the thermal stratification of the atmosphere. In particular, the greater the vertical temperature gradient, the greater is the correlation radius. This can also be seen in Fig. 2 of the Enclosure. In the region of frequencies $f = 10^{-4} - 10^{-3}$ rad/m, all the normalized spectral densities are linearly dependent on f . This corresponds to a power-law dependence of spectral

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L 10716-65

ACCESSION NR: AT4045513

2

density on frequency which can be approximated by the function

$$S(\Omega) = AB^{-\Omega} \quad (3)$$

It can be concluded from Figures 1 and 2 that with an increase in the vertical temperature gradient there is an intensification of turbulence, an increase in the correlation radius and a displacement of the spectrum of fluctuations of the horizontal component of wind velocity into the region of high frequencies. The averaged spectral densities for the atmospheric layers 4.5-5.5 km and 6.5-7.5 km were both found to decrease linearly with increasing \sqrt{L} . "The authors wish to thank R. O. Tydel'skaya for assistance in selecting the initial balloon observation data." Orig. art. has: 10 formulas, 6 figures and 4 tables.

ASSOCIATION: Tsentral'naya aerologicheskaya observatoriya (Central Aerological Observatory)

SUBMITTED: 00

ENCL: 02

SUB CODE: ES

NO REF Sov: 005

OTHER: 000

Card

3/5

L-10716-65

ACCESSION NR: AT4045513

ENCLOSURE: 01

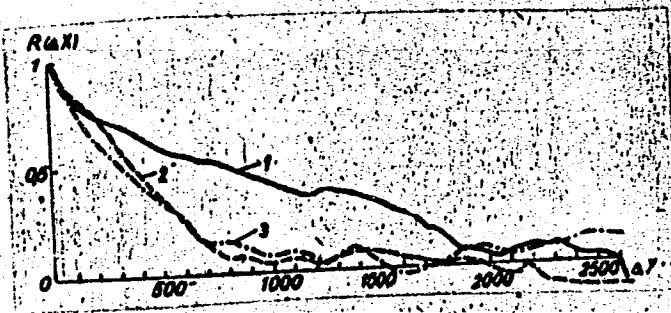


Fig. 1. Empirical correlation functions of fluctuations of the horizontal component of wind velocity. 23 September, 1955. 1 - 1,220 m, 2 - 2,060 m, 3 - 2,450 m.

card

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I. 10716-65

ACCESSION NR: AT4045513

ENCLOSURE: 02

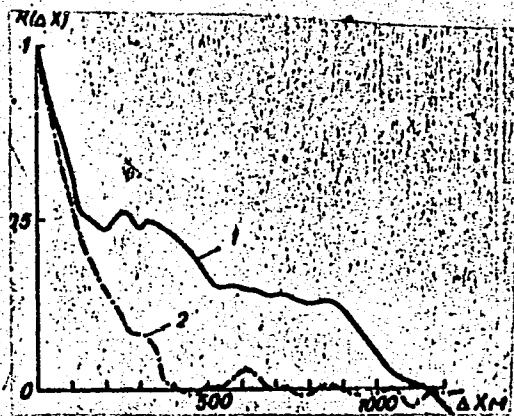


Fig. 2. Empirical correlation functions of fluctuations of the horizontal component of wind velocity. 23 June, 1955. 1 - 950 m, 2 - 1,080 m.

Card

5/5

YUTKEVICH, R.M.; SHCHERBAKOVA, L.V.

Investigating the efficiency of certain surfactants as demulsifiers
of boiler mazuts. Khim.i tekhnol. i masel 10 no.1:50-52 Ja '65.
(MIRA 18:4)

L 3534-66 EWT(1)/ECC GW

ACCESSION NR: AT5022878

UR/2789/65/000/063/0037/0045

551.551,551.557

AUTHORS: Koslov, V. I.; Pinus, N. Z. (Doctor of physico-mathematical sciences);
Shcherbakova, L. V.

TITLE: Certain statistical characteristics of wind velocity fluctuations in the tropopause

SOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy, no. 63, 1965. Voprosy dinamiki atmosfery (Problems of atmospheric dynamics), 37-45

TOPIC TAGS: tropopause, troposphere, wind, jet stream, meteorological phenomenon, meteorology, aerodynamic characteristic, Richardson number

ABSTRACT: The experimental data of 62 series of experiments on the wind velocity in a 1-km wide layer 10-12 km above the earth's surface were subjected to a statistical analysis carried out with the aid of an electronic computer. Correlation and spectral function for the wind velocity fluctuations were determined and are presented graphically (see Fig. 1 on the Enclosure). Mathematical approximations to the above function are presented. The autocorrelation

Card 1/4

L 3534-66

ACCESSION NR: AT5022878

function was found to be adequately represented by

$$R(\Delta H) = e^{-\alpha \Delta H} \cos \phi \Delta H,$$

where H is the height in km and α and ϕ are correlation parameters. Values of α and ϕ are tabulated. The correlation function along the x -direction in the horizontal plane is given by

$$R(\Delta x) = R_0 \exp - \alpha \Delta x$$

The normalized spectral density derived from the autocorrelation function is given by

$$S(\Omega) = \frac{1}{\pi} \int_0^\infty R(\Delta H) \cos \Omega \Delta H d(\Delta H), \quad S(\Omega) = \frac{\alpha}{\pi} \frac{\Omega^2 + \alpha^2 + \phi^2}{(\Omega^2 - \phi^2 - \alpha^2)^2 + 4\alpha^2 \Omega^2}$$

where Ω is the angular frequency in rad/min. The relation between the correlation and spectral characteristics of the wind velocity field and the degree of atmospheric turbulence was investigated in terms of Richardson's equation

$$RI = \frac{g}{T} \frac{\gamma_a - 1}{\beta^2}$$

where RI is the Richardson Number, g - acceleration due to gravity, T - the absolute temperature, β - the mean wind velocity, γ_a and γ the adiabatic and

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ACCESSION NR: AT5022878

3

observed vertical thermal gradients respectively. It was found that the dispersion of pulsating velocities increased with decrease in the Ri number and that the frequency distribution of the former was such that the maximum in spectral density of the energy of turbulence was shifted to higher frequencies. Curves of $\sigma^2(u')$, the dispersion of pulsation wind velocities as a function of γ and β , are presented graphically. Two specific examples of turbulence distribution observed on 28 September 1955 are discussed. It is concluded that in these two instances the turbulence had a particularly complex character. Orig. art. has: 5 tables, 7 graphs, and 7 equations.

ASSOCIATION: Tsentral'naya aerologicheskaya observatoriya (Central Aeroclimatological Observatory) 44/45

SUBMITTED: 00

ENCL: 01

SUB CODE: ES

NO REF SOV: 002

OTHER: 000

Card 3/4

L 3534-66

ACCESSION NR: AT5022878

ENCLOSURE: 01

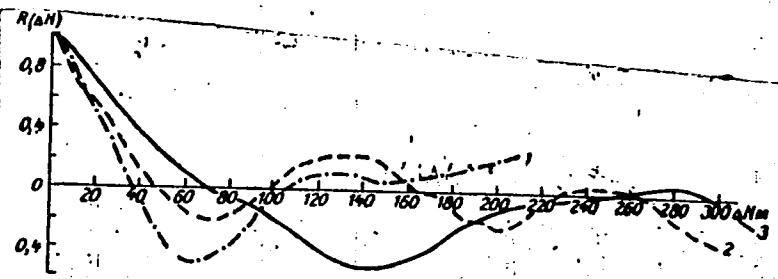


Fig. 1. Empirical autocorrelation functions: 1) 5.5-6.5 km,
28/IX, 1955; 2) 1.5-2.5 km, 28/IX, 1955; 3) 8.5-9.5 km,
25/I, 1954

Card 4/4

SHCHERBAKOVA, M., kand.geograf.nauk

First explorer of Kamchatka. Nauka i zhyttia 12 no.10:61 0
'62. (MIRA 16:1)
(Krasheninnikov, Stepan Petrovich, 1711-1755)

SHCHERBAKOVA, M.A.

Work of the medicosanitary squad in Mine no.17, "Evdokievka." Sov.
zdrav. 15 no.5 supplement:12-13 O '56. (MLRA 10:1)

1. Glavnnyy vrach medсанчастi shakhty no.17 (Stalinskaya oblast').
(INDUSTRIAL HYGIENE
med. care of miners)

SHCHERBAKOVA, M.A., kand.biol.nauk

Cultivation of the rust fungus *Gymnosporangium juniperi-virginianae*
on artificial media. Vestsi AN BSSR. SER. biial. nav. no.3:118-
119 '60. (MIRA 14:1)

(RUSTS (FUNGI))

SHCHERBAKOVA, Miliitsa Filippovna.

[Through the nature land; manual for excursionists and tourists] Po
rodnomu kraiu; V pomeoshch' ekskursantam i turistam. Pod obshcheg red.
V.N. Ashchurkova, [Tula] Tul'skoe knizhnoe izd-vo, 1956. 230 p.
(MLRA 10:5)

(Tula Province- Description and travel)

SHCHERBAKOVA, M. G.

USSR/Medicine - Histology

Card 1/1 Pub. 22 - 47/59

Authors : Shcherbakova, M. G.

Title : Histological changes in skeletal muscles during experimental muscular dystrophy (E-avitaminosis)

Periodical : Dok. AN SSSR 102/2, 369-371, May 11, 1955

Abstract : The histological changes occurring in skeletal muscles of animals during applied MD (E-avitaminosis) were investigated. Young rabbits kept on an avitaminosis diet were used in the experiments. Results obtained are analyzed. None references: 7 USSR and 2 USA (1931-1953). Illustrations.

Institution : Acad. of Med. Sc., USSR, Inst. of Exp. Medicine

Presented by : Academician N. N. Anichkov, January 19, 1955

... "and also ... "Provide information and intelligence to the Inter-
national Organization for Economic Cooperation (Organization for Economic Coopera-
tion). Need 1.1.3 of
IOR. Type of information: Political. Level: Top. (Information
is to be provided to the International Organization for Economic Coopera-
tion).

AM: Information required (e. g., 2000)

SHCHERBAKOVA, M.G. (Stalino, shakhta Yevdokimovka)

Work of an industrial health center. Fel'd. i skush. 21 no.7:
45-47 Jl '56. (MLRA 9:10)
(INDUSTRIAL HYGIENE)

SHCHERBAKOVA, M.G. (Stalino)

Work practice of the medical and sanitary section of the
"Budennovugol", Trust. Sov.zdrav. 17 no.10:26-30 O '58

(MIRA 11:11)

(INDUSTRIAL MEDICINE,
in mining in Russia (Rus))
(MINING,
prev. measures in Russia (Rus))

SHCHERBAKOVA, M.G.

Conducting periodic medical examinations of miners in the No.17
"Evdokiyevka" Mine. Vrach.delo no.10:1071-1072 O '59. (MIRA 13:2)

1. Nachal'nik mediko-sanitarnoy chasti shakhty No.17 "Evdokiyevka."
(MINERS--DISEASES AND HYGIENE)

KILOPIA, N.G. [deceased]; SHCHERBAKOVA, M.G.

Succinic dehydrogenase activity of the endothelium under normal
conditions and in tissue culture. TSitologija 3 no.6:644-652 N-D
'61. (MIR 14:12)

1. Laboratoriya eksperimental'noy morfologii Instituta onkologii
AMN SSSR, Leningrad.
(ENDOTHELIUM) (SUCCINIC DEHYDROGENASE)

SHCHERBAKOVA, M.G.

Experimental vitamine E deficiency as a model of progressive muscular dystrophy in men. Arkh.pat. 23 no.4:15-23 '61.

(MIRA 14:6)

1. Iz laboratorii eksperimental'noy morfologii (zav. - deyst-vitel'nyy chlen AMN SSSR prof. N.G. Khlopin) Instituta onkologii AMN SSSR.

(MUSCULAR DYSTROPHY) (DEFICIENCY DISEASES)

SHCHERBAKOVA, M.G. (Leningrad, S-124, Suborovskiy prospekt 60, kv.20)

Histological changes in the skeletal musculature in alimentary
muscular dystrophy. Arkh. anat. gist. i embr. 40 no.2:31-41 F '61.
(MIRA 14:5)

1. Laboratoriya eksperimental'noy morfologii (zav. - deystvitel'nyy
chlen AMN SSSR prof. N.G.Khlopin) Instituta onkologii AMN SSSR.
(DEFICIENCY DISEASES) (MUSCULAR DYSTROPHY)
(TOCOPHEROL)

. SHCHERBAKOVA, Mira Grigor'yevna; KOLYBINA, O.D., red.; MIRONOVA,
A.M., tekhn. red.

[Work of the medicosanitary service in reducing disease
incidence among miners] Opyt raboty mediko-sanitarnoi cha-
sti po snizheniiu zabolеваemosti shahterov. Moskva, Medgiz,
1963. 122 p. (MIRA 16:4)
(MINERS--DISEASES AND HYGIENE)

BCHERBAKOVA, M.I., TRETYAKOVA, M.I., ALEXSEIEVA, N.I., MARYINA, L.L.,
ZEDANOV, G.P., and ZAMCHALOVA, G.V.

"Study of Composition of Primary Cosmic Radiation at an
Altitude of 320 Kilometers,"

report presented at the Intl. Conference on Cosmic Rays and
Earth Storms, Kyoto, Japan, 4-15 Sept 1961.

SHIRNOVA, G.A., aspirant; SHCHERBAKOVA, N.N.; BOGACHEVA, V.V.; REGINYA,
V.I.

Economic efficiency of the manufacture of nonwoven fabrics.

Tekst. prom. 25 no.2:50-51 Ag '65. (MTRA 12:9)

1. Leningradskiy institut tekstil'noy i legkoy promyshlennosti
imeni Kirova (for Shirnova). 2. Leningradskiy nauchno-issledovatel'skiy
institut tekstil'noy promyshlennosti (for Shcherbakova). 3. Nachal'nik
tekhnicheskogo otdela fabriki "Lensukno" (for Bogacheva). 4. Zaveduyush-
chiy apparatno-pryadil'nym proizvodstvom fabriki "Lensukno" (for
Reginya).

KOKOSHINSKAYA, V.I., kand.tekhn.nauk, dotsent; SHMANEVA, R.N., kand.tekhn.nauk, assistent; PEREPELKINA, M.D.; SHCHERBAKOVA, M.N.; BOGACHEVA, V.S.

Properties of half-woolen nonwoven fabrics. Tekst.prom. 25
no.11:52-56 N '65.

(MIRA 18:12)

1. Kafedra tovarovedeniya promyshlennyykh tovarov Leningradskogo instituta sovetskoy torgovli imeni Engel'sa (for Kokoshinskaya).
2. Kafedra tovarovedeniya Leningradskogo instituta sovetskoy torgovli imeni Engel'sa (for Shmaneva). 3. Nachal'nik otdela netkanykh materialov Leningradskogo nauchno-issledovatel'skogo instituta tekstil'noy promyshlennosti (for Perepelkina).
4. Rukovoditel' gruppy otdela netkanykh materialov Leningradskogo nauchno-issledovatel'skogo instituta tekstil'noy promyshlennosti (for Shcherbakova). 5. Nachal'nik tekhnicheskogo otdela fabriki "Lensukno" Leningrad (for Bogacheva).

FILIPPOVA, I.B.; SHCHERBAKOVA, N.N.

Devonian stratigraphy of the upper Ata-Su Valley (central Kazakhstan).
Izv.vys.ucheb.zav.; geol.i razv. 3 no.1:37-52 Ja '60.

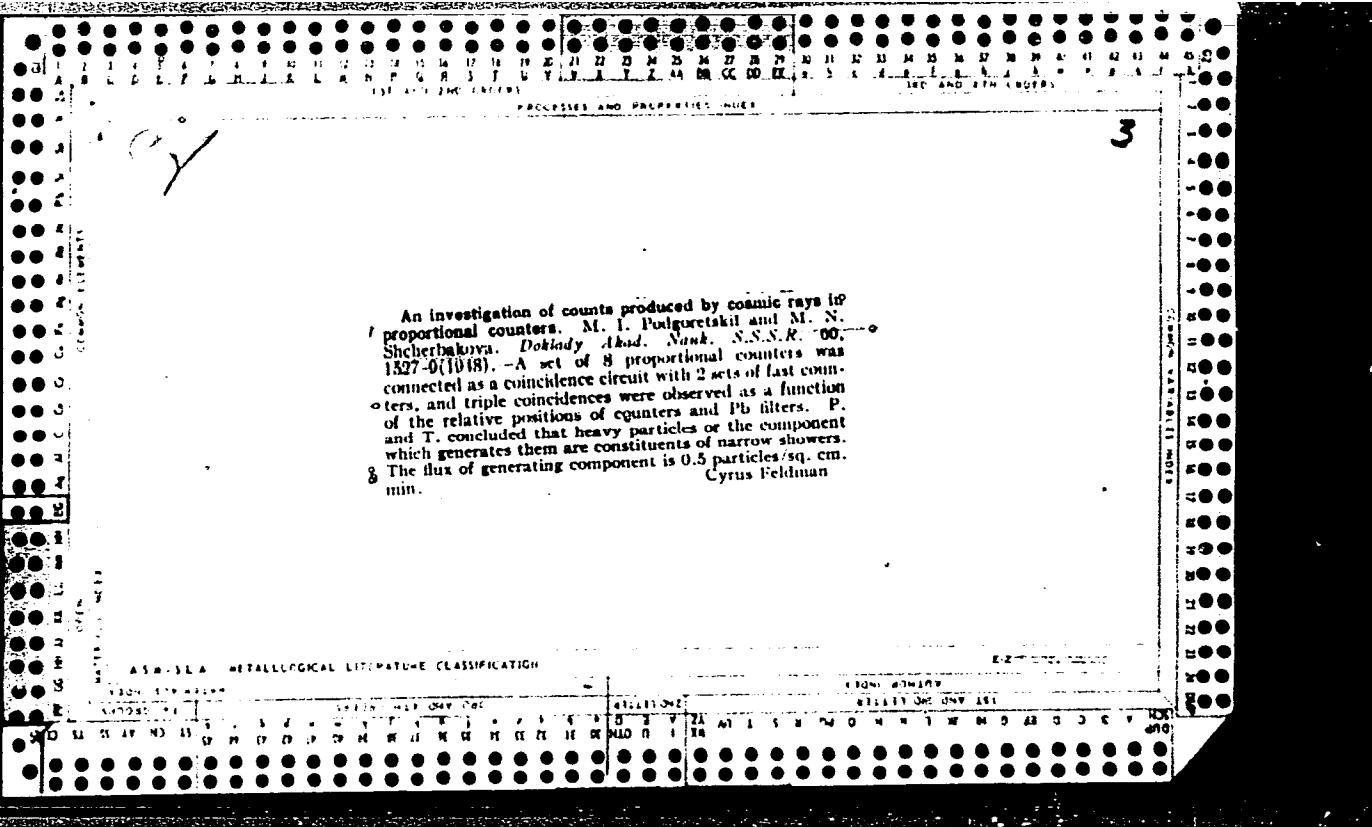
(MIRA 13:7)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Ata-Su Valley-- Geology, Stratigraphic)

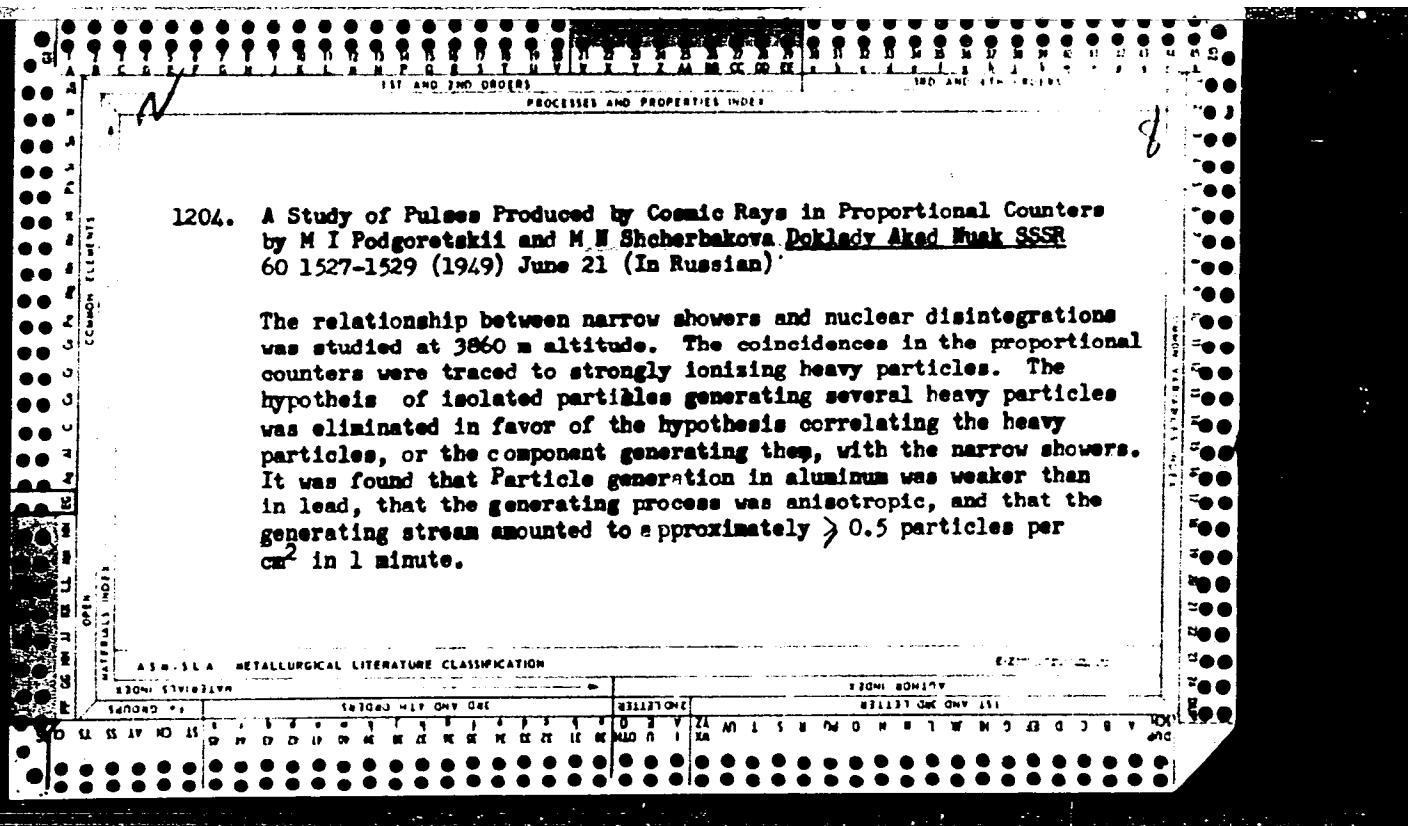
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34

Proportional-counter study of nuclear fissions produced by cosmic rays. V. M. Bezotosnyi and M. N. Shcherbatova. *Zhur. Eksppl. Teoret. Fiz.* 17, 1123 (1974). Nuclear fissions at 3800 m. above sea level in the Pamirs were observed with 2 groups of proportional counters, each contg. 4 counters in parallel, and a group of 8 Trosit counters in parallel. Filters of Pb and Al (1.07 g./sq. cm.) in several positions were the sources of the particle groups producing the coincidences observed. The analysis indicates that the no. of fissions increases with the at. no.; at least 25-30% of fissions are generated by nonionizing particles; a significant part of narrow showers contain very active particles causing fissions. F. H. Murray



An investigation of counts produced by cosmic rays in proportional counters. M. I. Pudgoretskii and M. N. Shcherbakova. *Doklady Akad. Nauk. S.S.R.* 100, 1527-9(1968). -A set of 8 proportional counters was connected as a coincidence circuit with 2 sets of fast counters, and triple coincidences were observed as a function of the relative positions of counters and Pb filters. P. and T. concluded that heavy particles or the component which generates them are constituents of narrow showers. The flux of generating component is 0.5 particles/sq. cm. min. Cyrus Feldman



SHCHERBAKOVA, M. N.

Dec 49

USSR/Nuclear Physics - Ionization Chambers
Showers

"Form of the Pulse in Ionization Chambers," A. I. Petrukhin, M. I. Podgoretskiy, N. D. Fedrov, L. N. Shtarkov, N. M. Shcherbakova, 3 pp

"Dok Ak Nauk SSSR" Vol LXIX, No 4

Bridge, Hazen, Rossi, and Williams, making use of fact that collection time for electrons is 2-3 orders less than that for positive ions (electrons are negative ions when chamber is filled with carefully purified noble gas), used high-frequency amplifier to obtain on its output a pulse connected solely with movement of electrons. Authors used amplifier passing both high and low frequencies to register form of pulse provided by positive ions. Submitted by Acad D. V. Skobel'tsyn 3 Sep 49

155T52

CONFIDENTIAL, *****

U.S./Nuclear Physics - Showers Cosmic Rays

1 Rev "C"

"Showers of Particles Generating the Electron-Nuclear Showers," L. I. Pogoretskiy, A. I. Lyubimov, N. N. Shcherbakova, I. Kh. Rydus, Inst. imeni Lebedeva, Acad Sci USSR

"Fiz. i Tekhn. SSSR" Vol 19(2), No 1, pp 15-17

Authors were assisted by Prof N. A. Lebedev, A. V. Zhuravlov, I. L. Rosenthal, and L. V. Kurnosov. Research was conducted, in 1947-1949 in the Iauira, on presence of unstable particles occurring component that generates subject electron-nuclear

Showers. Describes particular arrangements of lead shields and counters employed; also triple and double coincidences obtained. Submitted 6 Jan 50 by Head D. V. Skobel'tsyn.

172789

✓ Nuclear fission linked with heavy, unstable particles.
62 I. M. Gramenitskii, B. A. Zamchalova, M. I. Podgoretskii,
M. I. Tret'yakova, and M. N. Shcherbakov (P. N.
Lebedev Phys. Inst., Acad. Sci. U.S.S.R., Moscow).
Zhur. Ekspill. i Teoret. Fiz. 28, 610-17 (1955).—Observations
of a star of the type \bar{N}_s showed that there were present not
only hyperons Λ^0 (19.3 ± 2.5), Δ^0 particles (18.8 ± 1.0),
but also "heavy" particles, i.e. those with a mass of about
1000 m, namely K^- mesons (18.0 ± 1.8) and π^- mesons (11.2
 ± 1.0). An analysis of this leads to the conclusion (to-
gether with other facts which are not presented) that the
nuclear capture of K^- mesons occurs under the formation of
 Δ^0 particles according to: $K^- + p \rightarrow \Delta^0 + \pi^0$; $K^- + p \rightarrow$
 $\Delta^0 + \gamma$; $K^- + p \rightarrow \Delta^0 + \nu$. Werner Jacobson

(4)

SHCHERBAKOVA, M.N.

3996

✓ TWO τ -MESONS DETECTED IN PHOTOGRAPHIC EMUL-

SIONS I. M. Gramenitskii, E. A. Zamolova, M. I.

Podgoretskii, M. I. Tret'jakova and M. N. Shchervakova

(P. N. Lebedev Physical Inst., Academy of Sciences,

USSR). Soviet Phys. JETP 3, 807-9(1956) Dec.

Characteristics of τ mesons found in a stack, consisting
of 126 layers of unbacked electron-sensitive emulsions of
type R, exposed for 7 hours at a height of 27 km were studied.
The comparatively small energy of one of the π^+ mesons
produced by a τ meson supports the hypothesis that the τ and
 χ mesons are different particles. (F.S.)

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Sch*

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MJ

USSR/Nuclear Physics - Elementary Particles.

C-3

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8648
Author : Gramenitskiy, I.M., Zamchalova, Ye.A., Podgoretskiy, M.I.
Inst : Tret'yakova, M.I., Shcherbakova, M.N.
Title : Two τ -Mesons Detected in Photographic Emulsions.
Orig Pub : Zh. eksperim. i teor. fiziki, 1956, 30, No 5, 967-969.
Abstract : A description of two decays of τ -mesons, detected in a type R photo emulsion (450 microns), exposed at an altitude of 27 km. In one case all three pions terminate their range within the emulsion pile, and with this one of the secondary pions has a small energy (9.5 - 0.2 Mev). This, according to Dalitz, is evidence of the assumption that the τ - and χ - mesons are different particles, and not different types of decay of the same particle.

Card 1/1

USSR/Nuclear Physics - Elementary Particles.

C-3

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8641

particles, absorbed by the same nucleus. The shift in the position of the maximum can be explained by the fact that the Λ^0 particle may turn out to be a lower energy level than the least bound neutron, and also by the slowing down of the negative pion in the Coulomb field of the nucleus.

Card 2/2

Shecherbakova, M. N.

3898

ENERGY SPECTRUM OF π^- -MESONS PRODUCED BY COSMIC RAYS IN PHOTOGRAPHIC EMULSIONS. B. A.

Varfolomeev, R. I., Korotimova, E. A., Zamchikova, M. I.,
Podgoretskii, and M. N. Shecherbakova (Academy of Sciences,
USSR). Soviet Phys. JETP 3, 935-8 (1957) Jan.

Two piles of emulsion stacks were irradiated in the stratosphere so that the mean direction of the primary cosmic particles was in the plane of the emulsion. About 1600 tracks of stopped π^- mesons were traced of which 195 π^+ and 328 π^- mesons were formed in the emulsions. The energy spectrum of the π^- mesons is shown. (B.J.H.)

RMP

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